

SOME NEW MUSCI, by C. F. Austin.—DICRANUM (CAMPYLOPUS) DONNELLII, n. sp. (*D. subleucogaster*, AUST. EXSIC. Suppl. I, n. 470, non C. MULL.)—A *D. subleucogastri* differt; colore amœne fulvo-viridi, foliis magis apertis subfalcatis longius et magis subito attenuatis apice sæpe albicantibus spinuloso-serratis, costa angustiori laxiori, etc.

*D. porphyrodyction*, MITT. proximum; differt tamen cellulis superioribus folii multum brevioribus (minutis quadrato-ovalibus), costa latiori multum longius excurrente apice magis serrata, etc.

Southern Florida, common. Associated with *D. gracilicaulis*, MITT. and at least three other species: among them is—

DICRANUM (CAMPYLOPUS) ANGUSTIRETIS, n. sp.?—Adspectu *C. gracilicauli* simile, sed foliis inferioribus minus appressis cellulis multum longioribus (sublinearibus) alaribus rufo purpureis tenuioribus valde constrictis, statim distinguitur.

LEPTOTRICHUM HOMOMALLUM (*Hedw.*) var.? EROSUM.—A forma normali differt; foliis eroso-serratis. Plantæ utriusque sexus in eodem cæspite: sterile. (An species distincta?)

Vancouver's Island, May, 1875, *Macoun*.

DICRANUM (CAMPYLOPUS) VIRGINICUM, n. sp.—Dioicum, sat dense lateque depresso-cæspitosum; cæspite late fulvo-viridi, caule subintricato vix ultra unciam longo laxo flexuoso tenui subæqualiter laxe folioso juniore albido-tomentoso, foliis (apicalibus nonnullis exceptis) strictiusculis erecto-apertis a basi subquadrato-ovata raptim longe subulato-setaceis canaliculatis toto margine minute serratis, costa lata striata viridi inferne folii latitudinem 1-5 to 1-3 subulamque fere totam occupante dorso scabra vel apicem versus subserrata, cellulis ad basin et in medio versus eam permultis laxis hyalinis albidis oblongis et ovalibus cæteris plerumque rhomboido-oblongis linearibusve: foliis apicalibus nonnullis a basi angustiori truncata fragili deciduis magis convolutis multum longius sensim attenuatis toto margine integerrimis dorso lævissimis, cellulis brevioribus basiloribus hyalinis vix ullis, costa ægre a lamina distincta: cætera desunt.

Blackwater Falls, West Virginia, July 5, 1878, *Capt. J. Donnell Smith*.

Stems slender and scarcely exceeding an inch in length; the younger ones lightly clothed with a delicate entangled white tomentum. About one half of the expanded portion of the leaf is composed of large hyaline cells. Ascending along the costa these gradually become smaller and chlorophyllose, while towards the margin they rapidly become much narrower and longer. The basal cells, although much enlarged are not inflated. There appear to be no true alar

cells. The lamina rarely extends to the middle of the subulate portion of the leaf. A curious feature is the deciduous leaves above described. On account of the longer cells of the lamina it cannot be confounded with either *D. subleucogaster* or *D. Donnellii*.

*CALYMPERES DONNELLII*, n. sp.—Caule perbrevis gregario-cæspitoso; foliis flexuoso- et subrecurvo-patentibus (siccitate constrictis et magis patentibus) e basi angustata longe ligulatis obtusiuscule acutatis canaliculatis integerrimis opacis minime crebre papillosis angustissime incrassato-marginatis vel margine concolore nonnullo planis superioribus apice valde constrictis, costa concolori valida percurrente apice granulifera, cellulis minimis basilaribus per spatium magnum acutum amplis hyalinis: cætera desunt.

On trunks of trees, Caloosa, Florida, March, 1878, *J. D. S.* and *C. F. A.*; scarce.

Closely allied to *C. Richardi*, *C. M.* (*Aust. Exsic. Suppl. I.*); but readily distinguished by the leaves being flexuose-patent when dry; they are also nearly twice as long, more opaque and more minutely areolated—the contracted granuliferous apex of the upper leaves about half as broad, but usually much longer; the hyaline portion at the base is composed of notably smaller cells, and is of a different shape—the dividing line between it and the opaque portion passing very obliquely upward from near the margin to the costa (much as in *C. disciforme*). Remarkable for the most minute ordinary leaf-cells, and for the leaves being widely spreading when dry.

*C. disciforme*, *C. MULL* with the upper leaves very broad and bearing filaments on the costa was also found sparingly on the Caloosa; also *C. ? crispus*, *Aust. Bot. Gazette*, II, p. 109 (*Syrphopodon?*).

There are indications of another new *Calymperes* from Caloosa, Fla.; differing from *C. disciforme* in much narrower leaves, with filaments borne on the costa from middle to apex. I have named it provisionally, *Calymperes filigera*.

*FISSIDENS DONNELLII*, n. sp.—Dioicus, minutulus; foliis 3–4-jugis immarginatis papillosis margine crenulato-serratis inferioribus oblongo-ovatis cæteris multo majoribus lanceolato-linealibus, duplicatura ad medium producta, costa sub apice finiente, cellulis perminutis papilla unica obtectis; pedicello perbrevis, capsulis destructis.

On the base of trees in a cypress swamp, Caloosa, Florida. March, 1878, *J. D. S.* and *C. F. A.*

This species is characterized by the papillose and crenulate immarginate leaves, consisting of but 3 or 4 pairs,—the upper ones considerably elongated. The male and female plants grow together. Un-

doubtedly it is closely related to *F. subcrenatus*, SCHIMP.; but that is said to have 5 or 6 pairs of *lanceolate* leaves.

*F. Garberi*, JAMES, ined.—another very small species with more numerous immarginate leaves was found on rotten wood and shells, on the Indian River, in 1877, by Capt. Smith. It also occurs sparingly in Southwest Florida.

The following species have also been found in Florida: *F. Ravenelii*, *F. incurvus* (vere), *F. subbasilaris*, *F. decipiens*, *F. taxifolius*, *F. adiantoides*, *Conomitrium Julianum* and *C. Hallianum*. The last two on the under side of floating logs in cypress swamps.

BRYUM (CLADODIUM) FLEXUOSUM, n. sp.—Caule laxe cæspitoso brevi innovante erecto, foliis pallide rubris erectis ovatis subconcavis acutis, margine plano vel demum recurvo integerrimo, costa valida percurrente vel excurrente, capsula in pedicello  $1\frac{1}{2}$ –2 unciali tenui flexuoso pallide rubro obovato-oblonga pallida subhorizontali, operculo majusculo depresso conico minute mammillato, peristomi interni cum externi adhærente, ciliolis nullis: dioca? flore masc. terminali majusculo bartramiduloideo.

On gravelly ground, Blackwater River, British Columbia, Macoun, (1875).

Readily distinguished by the short reddish stems, long flexuose pedicel and pale oblongish capsule *not tapering at the base*.

NECKERA (PILOTRICHUM?) FLORIDANA, n. sp.?—Caule primario repente radiculoso innovandi-ramoso submicrophylo, foliis ovato-lanceolatis acuminatis ecostatis lævibus margine planis, secundario compressiusculo (vel siccitate teretiusculo) erecto (vel pendulo?) stricto vel curvulo simplici vel parce ramuloso apice obtusiusculo nonnunquam stelloideo, foliis erecto-apertis imbricatis anguste oblongo-lanceolatis profunde canaliculatis vel cymbiforme-excavatis sensim acutatis supra medium plicato-striatis utrimque minutissime subobsoleteve pappiosis margine late revolutis integerrimis obsoletissimeve serrulatis pro more supra medium leviter simpliciter costatis, cellulis minutissimis lineari-fusiformibus fere rectis basilaribus paulo latioribus quadratis subseriatis granulosis ad angulos spatium magnum distinctum formantis: cætera desunt.

On trees, Caloosa, Florida, March, 1878, *J. D. S.* and *C. F. A.*

Leaves usually with a plica near the margin at the base, or often extending to near the apex; costa very light and usually extending a little way above the middle. Possibly a *Meteorium*.